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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,249	09/27/2002	Edgar L. Garrison	71445-3	2125
20915	7590	05/20/2004	EXAMINER	
MCGARRY BAIR PC 171 MONROE AVENUE, N.W. SUITE 600 GRAND RAPIDS, MI 49503			CECIL, TERRY K	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,249

Applicant(s)

GARRISON ET AL.

Examiner

Mr. Terry K. Cecil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 5-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date (three).
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group 1, claims 1-4 without traverse is acknowledged.

Specification

2. The disclosure is objected to because of the following informalities:
 - The abstract of the disclosure is objected to because it contains legal language, i.e. "comprises" and "comprising". Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 1 and 4 are objected to because of the following reasons:
 - In claim 1, line 5, "silver" has been misspelled.
 - Claim 4 is objected to for failing to limit claim 1 from which it depends: since applicant's claim 1 is interpreted as a composition (actually two compositions—undiluted stock and maintenance), it is not seen how applicant's limitations in claim 4, describing the state of the constituent solutions (e.g. being in different containers) before the composition is made, further limit the composition of claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because of the following reasons:

- In claim 1, it is unclear if applicant's concentration values (given in either percentage or ppm) for the both the silver colloid and the hydrogen peroxide are given in terms of the total solution (i.e. either undiluted stock solution or maintenance solution) or in terms of the constituent solutions (that of the silver colloid and that of the hydrogen peroxide). In paragraph [0013] of the specification, applicant gives the concentration in terms of both:
 - (1) 440 ml 5-25 ppm Ag^+ [silver colloid constituent solution] and 60 ml .3% to 30% H_2O_2 [hydrogen peroxide constituent solution]; or
 - (2) 17.6 ppm Ag^+ and 3.15% H_2O_2 [total solution] and also the ranges given in paragraph [0014] seem to be in terms of total solution.
- In claim 3, the use of "trace" to describe the amount of sodium bicarbonate is unclear, since applicant has not defined such in the claim nor in the specification.
- Claims 2-4 are also rejected since they suffer the same defects as the claims from which they depend.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elhaik et al. (U.S. 6,277,414) in view of Brookline (U.S. 3,350,265). Elhaik teaches both diluted and undiluted versions of his disinfectant solution (col. 9, lines 1-2) which include a concentration of less than 60% by weight of hydrogen peroxide (abstract) and preferably 1.5% to 8% (col. 8, line 43). His solution also includes silver in a concentration of between 0.0005/1 and 0.025/1 (given in relation to concentration of hydrogen peroxide, col. 5, lines 5-9). Though the concentration is not given in terms of parts-per-million, using silver colloid in a concentration of 2-10 ppm is known in the prior art of Brookline (col. 3, lines 5-10). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the silver concentration of Brookline in the invention Elhaik since Brookline teaches such a value to be preferable in a germicidal composition that avoids attendant difficulties (col. 9, lines 18-19). The examiner contends that the amount of dilution of the stock solution, as well as the specific concentrations of the constituent, are a matter of optimization within the skilled man that depends, e.g. on the types of organisms to be destroyed—e.g. any of those listed in table IIA of Elhaik. Since distilled is pure water, using such for the purified dilution water of Elhaik is considered as being within ordinary skill.

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8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elhaik, in view of Brookline, as applied above, and in further view of Chandler (U.S. 6,423,219). Claim 2 has the limitations of respective first second colorants for the solutions.

to emerge from such appliances. The active agent preferably includes a trace color (e.g., pink) so that the operator can
20 detect the emergence thereof from the appliances. The active

As shown in the text reproduced above from col. 8, Chandler teaches adding a trace color to the biocidal agent. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the colorant of Chandler in the solution of Elhaik, as modified by Brookline, since Chandler teaches the benefit of determining when the solution has been flushed out of the object or line being treated. Although claim 2 does not require the first and second colorants to be different, it is contended that the diluted solution would be a lighter color of pink.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elhaik, in view of Brookline, as applied above, and in further view of Arata (U.S. 6,197,814). Arata teaches adding sodium bicarbonate to the biocide solution (col. 11, lines 35-36). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to add sodium bicarbonate of Arata to the solution of Elhaik, as modified by Brookline, in order to adjust the pH of the solution. The amount added would be within the knowledge of the skilled man in order to optimize to performance of the disinfectant solution by affecting the solubility of the constituents.

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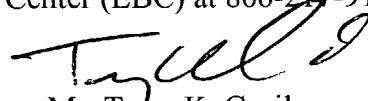
10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elhaik, in view of Brookline, as applied above, and in further view of Detsch et al. (U.S. 5,526,841). Claim 4 has the limitation of the silver colloid and hydrogen peroxide constituent solutions being in respective containers. Detsch teaches containers 22 and 26 for holding respective agents [as in claim 4]. As explained above, it is not clear how this claim limits the combination. However, upon modification with the system Detsch it is considered to be within ordinary skill for the constituent solutions of Elhaik, as modified by Brookline, to be respective containers in order to have the concentration as desired when flushing the system.

*Note that the receipt of applicants Declaration filed under 37 CFR 1.131 (before examination of the claims) is acknowledged but is insufficient to overcome the prior art references applied.

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11. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil
Primary Examiner
Art Unit 1723

TKC
May 15, 2004